Refine Search

Search Results -

Terms	Documents
L4 and L3	2

Database:
US Pre-Grant Publication Full-Text Database
US Patents Full-Text Database
US OCR Full-Text Database
EPO Abstracts Database
JPO Abstracts Database
Derwent World Patents Index
IBM Technical Disclosure Bulletins

Search: L5

Refine Search

Recall Text | Clear | Interrupt

Search History

DATE: Saturday, April 09, 2005 Printable Copy Create Case

Set Name side by side	Query	Hit Count	Set Name result set
DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD; PLUR=YES; OP=OR			
L5	L4 and l3	2	L5
L4	half$connect$ or (half adj1 connect$)	5134	L4
L3	l1 and L2	13	L3
L2	disconnect$ adj state	4114	L2
L1	automatic adj1 clutch	4095	L1

END OF SEARCH HISTORY

L3: Entry 2 of 13 File: PGPB Jul 15, 2004

PGPUB-DOCUMENT-NUMBER: 20040138024
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20040138024 A1

TITLE: Automatic clutch control device

PUBLICATION-DATE: July 15, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Kano, Hiroyuki	Nagoya-shi		JP	
Kinoshita, Masaki	Kariya-shi		JP	
Endo, Hiroaki	Shizuoka-ken		JP	
Hirose, Taro	Susono-shi		JP	

US-CL-CURRENT: 477/74

CLAIMS:

What is claimed is:

1. An automatic clutch control device comprising: a clutch connecting/disconnecting actuator for driving a clutch, disposed between an output shaft of a power source of a vehicle and an input shaft of a transmission, so as to be connected or disconnected; and a clutch control means that executes a disconnecting operation for changing the state of the clutch from a connecting state to a disconnecting state before the transmission starts the shift operation and executes a connecting operation for changing the state of the clutch from the disconnecting state to the connecting state after the shift operation is completed, wherein the clutch control means changes at least one of a speed of the connecting operation and a speed of the disconnecting operation in accordance with a running state of the vehicle.

2. An automatic clutch control device claimed in claim 1, comprising road friction coefficient obtaining means for obtaining a road friction coefficient that is a friction coefficient between the road surface on which the vehicle runs and a tire of the vehicle, wherein the clutch control means is configured to change at least one of the connecting operation speed and the disconnecting operation speed in accordance with the road friction coefficient.

3. An automatic clutch control device claimed in claim 2, wherein the clutch control means is configured to slow at least one of the connecting operation speed and the disconnecting operation speed as the road friction coefficient is smaller.

4. An automatic clutch control device claimed in claim 3, wherein the clutch control means is configured to slow only the connecting operation speed as the road friction coefficient is smaller.

5. An automatic clutch control device claimed in claim 1, wherein the vehicle, to which the automatic clutch control device is applied, comprises vehicle stabilizing control executing means for setting a target wheel speed related amount of each wheel in accordance with a running state of the vehicle and controlling braking force exerted on each wheel such that an actual wheel speed related amount of each wheel becomes the target wheel speed related amount, and the clutch control means is configured to change at least one of the connecting operation speed and the disconnecting operation speed depending upon whether the vehicle stabilizing control is executed or not.

6. An automatic clutch control device claimed in claim 5, wherein the clutch control means is configured to slow at least one of the connecting operation speed and the disconnecting operation speed when the vehicle stabilizing control is executed, compared to the case where the vehicle stabilizing control is not executed.

7. An automatic clutch control device claimed in claim 6, wherein the clutch control means is configured to slow only the connecting operation speed when the vehicle stabilizing control is executed, compared to the case where the vehicle stabilizing control is not executed.

8. An automatic clutch control device claimed in claim 1, comprising determining means that determines whether a predetermined operation for obtaining an acceleration greater than an acceleration obtained when the vehicle is in the normal running state is executed or not by a driver, wherein the clutch control means is configured to change at least one of the connecting operation speed and the disconnecting operation speed depending upon whether the predetermined operation is executed or not.

9. An automatic clutch control device claimed in claim 8, wherein the clutch control means is configured to increase at least one of the connecting operation speed and the disconnecting operation speed when the predetermined operation is executed, compared to the case where the predetermined operation is not executed.

10. An automatic clutch control device claimed in claim 9, wherein the clutch control means is configured to increase only the connecting operation speed when the predetermined operation is executed, compared to the case where the predetermined operation is not executed.